AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An image processing ~~system including~~apparatus comprising:

an image data input unit that inputs image data represented by a plurality of pixels;

a luminance distribution calculator that calculates a luminance distribution of the image data;

a number-of-color ~~detecting means~~detector that detects a number of colors by regarding a number of luminance values in the luminance distribution as the number of colors ~~which inputs image data representing information of each of pixels resolved in a dot matrix form from an image and which regards information corresponding to the luminance of each pixel as color and detects the number of colors used~~; and

an image ~~discriminating means for judging~~discriminator that discriminates ~~the~~ a type of image ~~on the basis of the detected~~based on the number of colors.

2. (currently amended) An image processing ~~system~~ apparatus according to claim 1, wherein, ~~when said~~the image data is represented by plural component values corresponding to luminance, and

~~said number-of-color detecting means determines~~the luminance distribution calculator calculates the luminance distribution by a weighting integration of ~~said~~ the component values.

3. (currently amended) An image processing ~~system~~ apparatus according to claim 1, wherein ~~said number-of-color detecting means~~ the luminance distribution calculator calculates the luminance distribution based on ~~samples~~ sampled pixels ~~almost uniformly from among all the pixels and detects the number of colors on the basis of the image data of each of the sampled~~ from the plurality of pixels.

Claim 4 (canceled).

5. (currently amended) An image processing ~~system~~ apparatus according to claim 1, further ~~including~~comprising:

a luminance distribution expander that expands the luminance distribution, wherein

~~a natural picture discriminating means which judges the image data to be of~~the image discriminator discriminates a natural ~~picture~~ image when the number of colors ~~detected~~ is not less than a predetermined number; and

~~an edge highlighting means which, when the image data has been judged to be of a natural picture by said natural picture discriminating means, determines a low frequency~~

~~component on the basis of a surrounding pixel distribution for each pixel as a constituent of the image data and diminishes said low frequency~~

~~component, thereby eventually enhancing the edge degree of each pixel~~the luminance distribution expander expands the luminance distribution when the type of image is considered to be the natural image.

6. (currently amended) An image processing method ~~for applying a predetermined image processing to image data which represents information of each of pixels resolved in a dot matrix form from an image, said method~~ comprising:

inputting ~~said~~ image data represented by a plurality of pixels;~~, regarding information corresponding to the luminance of each pixel as color, detecting the number of colors used, and judging the type of image on the basis of the detected number of colors~~

calculating a luminance distribution of the image data;

detecting a number of colors by regarding a number of luminance values in the luminance distribution as the number of colors; and

discriminating a type of image based on the number of colors.

7. (currently amended) A computer-readable medium ~~having an image processing~~storing a control program ~~recorded thereon~~ to have a computer carry out an image processing method, said method comprising~~for inputting in a computer image data which~~

~~represents information of each of pixels resolved in a dot matrix form from an image and for performing a predetermined image processing, said image processing control program comprising the steps of~~:

inputting ~~the~~ image data represented by a plurality of pixels;

~~, regarding information corresponding to the~~calculating a luminance distribution of ~~each pixel as color, and detecting the number of colors~~the image data; ~~and~~

detecting a number of colors by regarding a number of luminance values in the luminance distribution as the number of colors; and

~~judging the~~discriminating a type of image ~~on the basis of the detected~~based on the number of colors.